

### REMARKS

This amendment is submitted in response to the non-final Office Action mailed October 17, 2005. In the Office Action, the Examiner:

- rejected pending claims 1-3, 6-8, 11-12, 25-27, 30-33, 44-46, 49-51 and 53 under 35 U.S.C. § 102(b) as anticipated by German patent publication DE 4341980 A1 to Oertel (hereinafter "Oertel");
- rejected pending claims 10, 13-20, 22, 24, 34-39, 41, 43, 52, 54-59, 61 and 63 under 35 U.S.C. § 103(a) as obvious in view of Oertel in combination with U.S. Patent No. 3,716,050 to Johnston (hereinafter "Johnston");
- rejected pending claims 4-5, 21, 28-29, 40, 47-48 and 60 under 35 U.S.C. § 103(a) as obvious in view of Oertel in combination with U.S. Patent No. 5,709,686 to Talos et al. (hereinafter "Talos"); and
- rejected pending claims 23, 42 and 62 under 35 U.S.C. § 103(a) as obvious in view of Oertel in combination with U.S. Patent No. 6,623,486 to Weaver et al. (hereinafter "Weaver").

In response, applicant has amended claims 1 and 25 and has added new claims 64 and 65 to further define the present invention and more clearly distinguish over the cited prior art. New claims 64 and 65 are fully supported by the specification of the present application. No new matter has been added. Following entry of this amendment, claims 1-65 will be pending in the application. These claim amendments do not represent acquiescence in the Examiner's rejections, but rather are made only to expedite prosecution of the present application. Applicant expressly reserves the right to pursue the subject matter of any previously presented claims in one or more continuation applications. As discussed more fully below, Applicant respectfully submits that each of the currently pending claims define features of the present invention that are not disclosed, taught or suggested by the prior art of record and respectfully requests allowance of same.

#### **Claim Rejections - 35 U.S.C. § 102(b)**

Claims 1-3, 6-8, 11-12, 25-27, 30-33, 44-46, 49-51 and 53 were rejected under

35 U.S.C. § 102(b) as anticipated by Oertel, a German language reference.<sup>1</sup> Applicant respectfully traverses these claim rejections and, for the reasons discussed below, submits that amended independent claims 1 and 25 are not anticipated by Oertel. More particularly, applicants note that the cited reference does not disclose, teach or suggest a bone plate comprising, *inter alia*, at least one combination hole including “a first portion having a substantially circular outer periphery defining a first center point, and a plurality of threads disposed on the outer periphery; and a second portion overlapping the first portion and having an unthreaded, elongated outer periphery defining a second center point; wherein the first center point is spaced apart from the second center point along the upper surface,” as recited in amended claim 1. Claim 25 has been similarly amended to recite a bone plate comprising, *inter alia*, a combination hole including “an unthreaded elongated portion in communication with the substantially circular portion.”

The Examiner cites FIGS. 1 and 3 of Oertel as disclosing all of the elements of original claims 1 and 25. (Oct. 17, 2005 Office Action at 2-3 (hereinafter “Office Action”).) As shown in the attached translation (Appendix), in discussing FIG. 3, the specification of Oertel states that “at least one hole 8 in the bone plate 1 may have an oblong shape parallel to the longitudinal axis of the bone plate 1, the terminal radii having different dimensions. . . . The hole 8 is conical and provided with a peripheral, internal thread 9. The conicity of the hole 8 once again corresponds to that of the head 5 of bone screw 3.” (Translation of DE 4341980 A1 at 3 (Appendix).)<sup>2</sup> Thus, contrary to the characterization of Oertel in the Office Action (Office Action at 2), the reference numerals 8, 9 do not refer to two different “portions” of a combination hole. Instead, numeral “8” refers to a “hole” in the bone plate and reference numeral “9” refers to the “peripheral internal thread” of the hole 8. (Translation of DE 4341980 A1 at 3.) Moreover, as clearly shown in FIG. 3 of Oertel and described in the specification, the oblong hole 8 of Oertel includes threads 9 along its entire periphery. Therefore, Oertel does not disclose teach, or suggest a combination hole having “a first portion having a substantially circular outer periphery defining a first center point, and a plurality of threads disposed on the outer periphery; and a second portion overlapping the first portion and having an unthreaded, elongated outer periphery defining a second center

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<sup>1</sup> A verified English translation of the specification of Oertel is attached hereto as an Appendix.

<sup>2</sup> All emphasis added unless otherwise noted.

point; wherein the first center point is spaced apart from the second center point along the upper surface” as recited in independent claim 1. Similarly, Oertel also fails to anticipate amended claim 25, which recites a combination hole including “an unthreaded elongated portion in communication with the substantially circular portion.”

Accordingly, for at least this reason, applicant respectfully requests that the anticipation rejection of claims 1 and 25 be withdrawn and that those claims, and each of their dependent claims 2-24 and 26-43, be allowed.

The Office Action also cites Oertel as anticipating independent claim 44, which recites a bone plate comprising, *inter alia*, at least one combination hole including “a first portion defining a substantially circular outer periphery and a plurality of threads extending substantially completely around the outer periphery; and a second portion in communication with the first portion and defining an elongated outer periphery, wherein the first portion defines a concave recess in the upper surface of the bone plate.” This feature is shown and described in detail in the specification of the present application:

As shown in FIGS. 1 and 3, elongated portion 24 may have a concave, substantially spherical recess 6 that opens toward upper surface 1 of the bone plate. When the shaft of a bone screw having a spherical head is located eccentrically in the elongated portion 24 (towards the left in FIG. 3), the spherical head may engage recess 6 and bias the bone plate to provide compression of the bone fracture.

(Specification of Appln. Ser. No. 10/695,392 at 7, FIGS. 1, 3.)

As commonly known in the art, the term “concave” is commonly defined as “curved like the inner surface of a sphere.” (*See, e.g., American Heritage College Dictionary* at 287 (3d Ed.1997).) In contrast, Oertel discloses a bone plate having conical holes only, e.g., “[t]he advantages, achieved with the invention, consist particularly therein that the osteosynthetic bone plate does not produce a pressing connection with the bone surface and the stable connection of the bone fragments is achieved by jamming the head of the bone screw into the conical thread of the holes in the bone plate.” (Translation of DE 4341980 A1 at 2.) As also known in the art, the term conical means “relating to or shaped like a cone,” and a “cone” is “a surface generated by a straight line, the generator, passing through a fixed point, the vertex, and moving along a fixed curve, the directrix.” (*See, e.g., American Heritage College Dictionary* at 291, 294 (3d Ed.1997).) Therefore, by definition, a “conical” hole is not “concave.” Since Oertel only discloses a bone plate having conical holes, it fails

to disclose a combination hole including a concave recess in the upper surface of the bone plate, and, therefore, does not anticipate independent claim 44.

Accordingly, for at least this reason, applicant respectfully requests that the anticipation rejection of claim 44 be withdrawn and that claim 44, and each of its dependent claims 45-63, be allowed.

**Claim Rejections 35 U.S.C. § 103(a)**

Applicant notes that claims 23, 42 and 62 have been rejected under 35 U.S.C. § 103(a) as obvious in view of Oertel in combination with Weaver. As discussed above, while each of these claims is allowable because the claims from which they depend, i.e., currently pending claims 1, 25 and 44, respectively, are not anticipated by Oertel, applicant also respectfully submits that this rejection should be withdrawn because, pursuant to 35 U.S.C. § 103(c), Weaver is disqualified as prior art used in an obviousness rejection.<sup>3</sup> In support of this statement, and pursuant to MPEP 706.02(l)(2)(II) applicant, by and through its attorneys, respectfully submits that:

Weaver and the present application were, at the time the invention of the present application was made, owned by, or subject to an obligation of assignment to, Synthes (U.S.A.).

Applicant further submits that the assignment records demonstrating that the parent to the present application (now U.S. Patent No. 6,669,701) and Weaver are commonly owned by Synthes (U.S.A.) have been recorded with the Patent Office at Reel 013792, Frame 0809, and Reel 011364, Frame 0057, respectively. Consequently, Applicant respectfully submits that the obviousness rejection of claims 23, 42 and 62 should be withdrawn because Weaver is not available as prior art in this context.

Applicants also note that claims 4, 28 and 47 have been rejected under 35 U.S.C. § 103(a) as obvious in view of Oertel in combination with Talos. Claim 4 recites a bone plate with a combination hole having a first portion with a plurality of threads disposed on the outer periphery, "wherein the plurality of threads extend over an angle of greater than about 180° with respect to the first center point." Claims 28 and 47 include similar limitations. The Examiner concedes that Oertel does not disclose this feature, but cites Talos

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<sup>3</sup> Weaver only qualifies as prior art to the present application under 35 U.S.C. § 102(e) because Weaver was first published on Sept. 23, 2003, after the Jan. 27, 2000 priority date of the present application.

as disclosing "a plurality of threads disposed on the outer periphery of the first portion of the combination hole extending over an angle greater than about 180°." (Office Action at 5.) Applicant respectfully traverses this rejection because the specification of Talos explicitly states that the partial thread does not extend over an angle greater than 180° — "[a]n inside thread is in the circular segment of the hole 2 and, because of design constraints, runs only in the lateral part of the plate over an angular range of about 60° to 179°, preferably about 90° to 150°." (Talos at col. 2, lines 40-44.) Therefore, neither Oertel nor Talos, either alone or in combination, disclose, teach or suggest the bone plate recited in claims 4, 28 and 47, and applicant respectfully submits that the obviousness rejections of these claims should be withdrawn.

**New Claims**

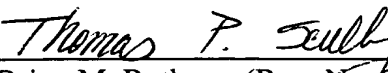
As demonstrated above, the obviousness rejections of original claims 23, 42, and 62 based on the combination of Oertel and Weaver and the obviousness rejections of original claims 4, 28, and 47 based on the combination of Oertel and Talos should be withdrawn as improper. Accordingly, applicant has added new claims 64 and 65, which correspond to original claims 4 and 23, respectively, rewritten in independent form. Applicant submits that new claims 64 and 65 distinguish over the cited art of record and respectfully requests allowance of same.

In view of the above amendments and remarks, Applicants respectfully request that the Examiner reconsider pending claims 1-63 and new claims 64-65 with a view towards allowance. The Examiner is invited to call the undersigned attorney at (212) 326-3939 if a telephone call could help resolve any remaining issues.

An amendment fee sheet for two additional independent claims and a separate petition for a one-month extension of time are also submitted herewith. Should any additional fees be required, please charge such fees to Jones Day deposit account no. 50-3013.

Respectfully submitted,

Date: January 24, 2006



Brian M. Rothery (Reg. No. 35,340)

By: Thomas P. Scully (Reg. No. 45,086)

**JONES DAY**

222 East 41<sup>st</sup> Street

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New York, NY 10017  
(212) 326-3939

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## APPENDIX